## **CLAIMS:**

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1. Purines of general formula (1)

$$H_2N$$
 $N$ 
 $(CH_2)_2$ 
 $OR_1$ 
 $OR_2$ 

wherein X is hydrogen, thioaryl;  $R_1$  and  $R_2$  are hydrogen or acetyl.

- 2. A process for the preparation of purines of formula (1), the said process comprises the steps of;
  - (a) reacting an aminopurine derivative of formula (2),

FORMULA (2)

wherein X is 4-methylphenylthio, 4-chlorophenylthio with a triester of formula (4)

$$\begin{array}{c} \text{COOR} \\ \text{Q---(CH}_2)_2 - \text{---} \\ \text{COOR} \end{array}$$

FORMULA (4)

wherein Q is leaving group and R is  $C_{1-6}$  alkyl preferably methyl or ethyl group, in presence of an organic solvent under constant agitation at about 50°C for a period of 2 to 5 hrs. to obtain an intermediate derivative of formula (5)

$$H_2N$$
 $N$ 
 $N$ 
 $COOR$ 
 $COOR$ 
 $COOR$ 
 $COOR$ 
 $COOR$ 
 $COOR$ 

wherein X is 4-methylphenylthio, 4-chlorophenylthio and R is  $C_{1-6}$  alkyl preferably methyl or ethyl group;

- (b) cooling the reaction mixture to a temperature at about 15°C to obtain the solid intermediate derivative of formula (5);
- (f) treating the compound of formula (5) with an alkoxide base in an alcoholic solvent at ambient temperature to obtain a diester;
- (g) reducing and acylating the diester in situ to obtain the intermediate compound of formula (6), and

$$H_2N$$
 $N$ 
 $N$ 
 $CH_2OAC$ 
 $CH_2OAC$ 
 $CH_2OAC$ 

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(h) desulfurising the intermediate of formula (6) with Raney nickel to obtain the compound of formula (1).

$$H_2N$$
 $N$ 
 $(CH_2)_2$ 
 $OR_1$ 
 $OR_2$ 

- 3. A process as claimed in claim 2, wherein the organic solvent for preparing compound of formula (2) and washing of compound of formula (4) is alcohol.
  - 4. A process as claimed in claim 3, wherein the alcohols are methyl and ethyl alcohol.

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- 5. A process as claimed in claim 2, wherein in step (c) the alkoxide base is alkoxide base of alkali metals preferably sodium alkoxide.
- 6. A process as claimed in claim 2, wherein preparation of 6-thioderivative is carried out by reacting 2-Amino-6-chloropurine with arylthiol in an alcoholic solvent and an organic base over a temperature range of 0°C to boiling point of solvent preferably 25-30°C.
- 7. A process as claimed in claim 2, wherein the organic bases used for the preparation of 2-Amino-6-chloropurine is selected from the group comprising of triethylamine, ethyldiisopropylamine, DBU in an alcoholic solvents.
- 10 8. A process as claimed in claim 7, wherein the alcoholic solvent is selected from the group comprising of methanol, ethanol and isopropanol.

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